

treatment with or exposure to cholinesterase-inhibiting drugs, pesticides, or chemicals.

(c) *Related tolerances.* See § 556.273 of this chapter.

(d) *Conditions of use.* It is used in the feed for cattle as follows:

(1) *Amount.* 1.1 milligrams per pound body weight per day.

(i) *Indications for use.* For control of grubs and as an aid in control of sucking lice.

(ii) *Limitations.* For beef cattle and nonlactating dairy cows; feed for 30 days; withdraw from dry dairy cows and heifers 21 days prior to freshening; withdraw 4 days prior to slaughter.

(2) *Amount.* 2.3 milligrams per pound body weight per day.

(i) *Indications for use.* For control of grubs.

(ii) *Limitations.* For beef cattle and nonlactating dairy cows; feed for 10 days; withdraw from dry dairy cows and heifers 21 days prior to freshening; withdraw 4 days prior to slaughter.

[41 FR 11000, Mar. 15, 1976, as amended at 51 FR 7397, Mar. 3, 1986; 57 FR 7652, Mar. 4, 1992; 62 FR 55161, Oct. 23, 1997; 62 FR 61626, Nov. 19, 1997]

§ 558.258 Fenbendazole.

(a) *Approvals.* Type A medicated articles: 4 percent (18.1 grams per pound), 8 percent (36.2 grams per pound), and 20 percent (90.7 grams per pound) fenbendazole and all combinations provided for in this section to 012799 in § 510.600(c) of this chapter.

(b) *Related tolerances.* See § 556.275 of this chapter.

(c) [Reserved]

(d) *Conditions of use.* (1) *Turkeys*—(i) *Amount.* Fenbendazole, 14.5 grams per ton (16 parts per million).

(A) *Indications for use.* For the removal and control of gastrointestinal worms: Round worms, adult and larvae (*Ascaridia dissimilis*); cecal worms, adult and larvae (*Heterakis gallinarum*), an important vector of *Histomonas meleagridis* (Blackhead).

(B) *Limitations.* Feed continuously as the sole ration for 6 days. For growing turkeys only.

(ii) [Reserved]

(2) It is used in swine feed as follows:

(i) *Amount.* Fenbendazole, 10 to 300 grams per ton (to provide 9 milligrams

per kilogram of body weight) given over a 3- to 12-day period.

(A) *Indications for use.* For the removal of: adult stage lungworms (*Metastrongylus apri* and *M. pudendotectus*); adult and larvae (L3, 4 stages—liver, lung, intestinal forms) large roundworms (*Ascaris suum*); adult stage nodular worms (*Oesophagostomum dentatum*, *O. quadrispinulatum*); small stomach worms (*Hyostrongylus rubidus*); adult and larvae (L2, 3, 4 stages—intestinal mucosal forms) whipworms (*Trichuris suis*); adult and larvae kidney worms (*Stephanurus dentatus*).

(B) Feed as sole ration.

(ii) *Amount.* Fenbendazole 10 to 80 grams per ton (to provide 9 milligrams per kilogram body weight) and lincomycin 20 grams per ton.

(A) *Indications for use.* As an anthelmintic (as provided in paragraph (c)(1)(i)(A) of this section) and for increased rate of gain in growing-finishing swine.

(B) *Limitations.* Feed as sole ration. Do not feed to swine that weigh more than 250 pounds; as lincomycin provided by 000009 in § 510.600(c) of this chapter.

(iii) *Amount.* Fenbendazole 10 to 80 grams per ton (to provide 9 milligrams per kilogram body weight) and lincomycin 40 grams per ton.

(A) *Indications for use.* As an anthelmintic (as provided in paragraph (c)(1)(i)(A) of this section) and for control of swine dysentery in animals on premises with a history of swine dysentery, but where symptoms have not yet occurred.

(B) *Limitations.* Feed as sole ration. Do not feed to swine that weigh more than 250 pounds; as lincomycin provided by 000009 in § 510.600(c) of this chapter.

(iv) *Amount.* Fenbendazole 10 to 80 grams per ton (to provide 9 milligrams per kilogram body weight) and lincomycin 100 grams per ton.

(A) *Indications for use.* As an anthelmintic (as provided in paragraph (c)(1)(i)(A) of this section) and for the treatment of swine dysentery.

(B) *Limitations.* Feed as sole ration. Do not use within 6 days of slaughter. Do not feed to swine that weigh more

than 250 pounds; as lincomycin provided by 000009 in § 510.600(c) of this chapter.

(v) *Amount.* Fenbendazole 10 to 80 grams per ton (to provide 9 milligrams per kilogram body weight) and lincomycin 200 grams per ton.

(A) *Indications for use.* As an anthelmintic (as provided in paragraph (c)(1)(i)(A) of this section) and for reduction in the severity of swine mycoplasmal pneumonia caused by *Mycoplasma hyopneumoniae*.

(B) *Limitations.* Feed as sole ration. Do not use within 6 days of slaughter. Do not feed to swine that weigh more than 250 pounds; as lincomycin provided by 000009 in § 510.600(c) of this chapter.

(vi) *Amount.* Fenbendazole, 10 to 300 grams per ton (to provide 9 milligrams per kilogram body weight), and bacitracin methylene disalicylate, 10 to 30 grams per ton.

(A) *Indications for use.* As an anthelmintic (as provided in paragraph (d)(1)(i)(A) of this section) and for increased rate of weight gain and improved feed efficiency in growing/finishing swine.

(B) *Limitations.* Feed as sole ration. Under conditions of continued exposure to parasites, retreatment may be needed after 4 to 6 weeks. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. Bacitracin methylene disalicylate as provided by 046573 in § 510.600(c) of this chapter.

(vii) *Amount.* Fenbendazole, 10 to 300 grams per ton, and bacitracin methylene disalicylate, 250 grams per ton.

(A) *Indications for use—(1) Growing/finishing swine.* As an anthelmintic (as provided in paragraph (d)(1)(i)(A) of this section) and for control of swine dysentery associated with *Treponema hyodysenteriae* on premises with a history of swine dysentery, but where signs of disease have not yet occurred; or following an approved treatment of the disease condition.

(2) *Pregnant sows.* As an anthelmintic (as provided in paragraph (d)(1)(i)(A) of this section) and for control of clostridial enteritis in suckling pigs caused by *Clostridium perfringens*.

(B) *Limitations—(1) Growing/finishing swine.* Feed as sole ration. Not for use

in growing and finishing swine that weigh more than 250 pounds. Diagnosis of swine dysentery should be confirmed by a veterinarian when results are not satisfactory. Under conditions of continued exposure to parasites, retreatment may be needed after 4 to 6 weeks. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. Bacitracin methylene disalicylate as provided by 046573 in § 510.600(c) of this chapter.

(2) *Pregnant sows.* Feed as sole ration. Diagnosis of clostridial enteritis should be confirmed by a veterinarian when results are not satisfactory. Under conditions of continued exposure to parasites, retreatment may be needed after 4 to 6 weeks. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. Bacitracin methylene disalicylate as provided by 046573 in § 510.600(c) of this chapter.

(3) It is used in the feed of beef and dairy cattle as follows:

(i) *Amount.* 5 milligrams fenbendazole per kilogram body weight (2.27 milligrams per pound).

(ii) *Indications for use.* For the removal and control of lungworms (*Dictyocaulus viviparus*); barberpole worms (*Haemonchus contortus*); brown stomach worms (*Ostertagia ostertagi*); small stomach worms (*Trichostrongylus axei*); hookworms (*Bunostomum phlebotomum*); thread-necked intestinal worms (*Nematodirus helvetianus*); small intestinal worms (*Cooperia punctata*)

(iii) *Limitations.* Feed as sole ration for one day. Do not use within 13 days of slaughter.

(4) It is used in free-choice beef and dairy cattle feed as follows:

(i) *Amount.* 5 milligrams fenbendazole per kilogram body weight (2.27 milligrams per pound).

(ii) *Indications for use.* For the removal and control of infections of lungworms (*Dictyocaulus viviparus*), barberpole worms (*Haemonchus contortus*), brown stomach worms (*Ostertagia ostertagi*), small stomach worms (*Trichostrongylus axei*), hookworms (*Bunostomum phlebotomum*), thread-necked intestinal worms (*Nematodirus helvetianus*), small intestinal worms (*Cooperia oncophora* and *C. punctata*), bankrupt worms

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(*Trichostrongylus colubriformis*), and nodular worms (*Oesophagostomum radiatum*) in cattle.

(iii) *Limitations*. Feed a total of 5 milligrams of fenbendazole per kilogram (2.27 milligrams per pound) of body weight to cattle over a 3 to 6 day period. Retreatment may be needed after 4 to 6 weeks. Do not slaughter within 13 days following last treatment. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism.

(iv) May be fed in a Type C feed as follows:

Ingredient	Percent	International feed No.
(A) Ingredient:		
Copper sulfate	0.45	6-01-720
Dried Cane Molasses	3.12	4-04-695
Monosodium phosphate	31.16	6-04-288
Salt (sodium chloride)	59.00	6-04-152
Zinc sulfate	0.76	6-05-556
Fenbendazole Type A article (200 grams per kilogram)	5.51	
(B) Ingredient:		
Dicalcium phosphate	32.31	6-00-080
Limestone	17.13	6-02-632
Magnesium oxide	9.79	6-02-756
Zinc sulfate	1.47	6-05-556
Copper sulfate	0.29	6-01-720
Potassium iodide	0.0098	6-03-759
Dried Cane Molasses	0.98	4-04-695
Selenium	0.0002	
Salt	35.93	6-04-152
Fenbendazole Type A article (200 grams per kilogram)	2.09	

(C) The content of any added vitamin and trace mineral may be varied; however, they should be comparable to those used by the firm for other free-choice feeds. Formulation modifications require FDA approval prior to marketing. The amount of selenium must comply with published regulations.

(5) *Zoo and wildlife animals*. For removal and control of internal parasites in hoofed zoo and wildlife animals as follows:

(i) *Feral swine* (*Suis scrofa*): 3 milligrams per kilogram per day for 3 days. Treatment for kidney worm (*Stephanurus dentatus*), roundworm (*Ascaris suum*), nodular worm (*Oesophagostomum dentatum*).

(ii) *Ruminants* (subfamily *Antilopinae*, *Hippotraginae*, *Caprinae*): 2.5 milligrams per kilogram per day for 3 days. Treatment for small stomach worm

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(*Trichostrongylus* spp.), thread necked intestinal worm (*Nematodirus* spp.), barberpole worm (*Haemonchus* spp.), whipworm (*Trichuris* spp.).

(iii) *Rocky mountain bighorn sheep* (*Ovis c. canadensis*): 10 milligrams per kilogram per day for 3 days. Treatment and control of *Protostrongylus* spp.

(iv) *Limitations*. Use as complete feed. Prior withdrawal of feed or water is not necessary. Retreatment may be required in 6 weeks. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. Do not use 14 days before or during the hunting season.

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§ 558.265 Halofuginone hydrobromide.

(a) *Approvals*. Type A medicated articles; 6 grams per kilogram (2.72 grams per pound) to 012799 in § 510.600(c) of this chapter.

(b) *Related tolerances*. See § 556.308 of this chapter.

(c) *Conditions of use*. (1) It is used in feed for broiler chickens as follows:

(i) *Amount*. 2.72 grams per ton.

(A) *Indications for use*. For the prevention of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. brunetti*, *E. mivati*, and *E. maxima*.

(B) *Limitations*. Feed continuously as sole ration; withdraw 4 days before slaughter; do not feed to layers; avoid contact with skin, eyes, or clothing; keep out of lakes, ponds, or streams.

(ii) *Amount per ton*. Halofuginone 2.72 grams (0.0003 percent) plus bambermycins 1 to 2 grams.

(A) *Indications for use*. For the prevention of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. brunetti*, *E. mivati*, and *E. maxima*; for increased rate of weight gain and improved feed efficiency.

(B) *Limitations*. Feed continuously as sole ration; withdraw 5 days before slaughter; do not feed to layers.

(iii) *Amount per ton*. Halofuginone 2.72 grams (0.0003 percent) plus virginiamycin 5 grams.